

March 15, 2021

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
Saint Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Commerce Department, Division of Energy Resources**  
Docket No. E111/M-21-127

Dear Mr. Seuffert:

Attached are the Comments of the Minnesota Commerce Department, Division of Energy Resources (Department) in the following matter:

In the Matter of a Dakota Electric Association Petition to Implement Pilot Electric Vehicle Services

The Department requests additional information from Dakota Electric Association before making a recommendation. The Department is available to answer any questions that the Commission may have in this matter.

Sincerely,

/s/ MATTHEW LANDI  
Rates Analyst

ML/ja  
Attachment



## Before the Minnesota Public Utilities Commission

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### Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E111/M-21-127

#### I. BACKGROUND

On February 12, 2021, Dakota Electric Association (Dakota) filed a proposal (Petition) to implement two new pilot services related to electric vehicles (EVs):

1. Pilot Non-Residential Electric Vehicle Service (Non-Residential EV Service)
2. Pilot Multi-Family Residential Electric Vehicle Service (Multi-Family EV Service)

The Non-Residential EV Service pilot would be available to non-residential customers who receive their main electric service through Dakota's existing Schedules 41 (Small General Service), 46 (General Service), and 54 (General Service, Optional Time-of-Day Rate). The Multi-Family EV Service pilot would be available for customers who live in multi-family homes as a separately installed service. Both pilots require participants to be on MP's Residential EV Service rate (Schedule EV-1)<sup>1</sup>.

Dakota's Residential EV Service is intended to provide its EV customers with appropriate price signals to encourage them to charge their car batteries during off-peak periods using the same rate design approved for MP's Non-Residential EV Service and the Multi-Family EV Service pilot programs. Table 1 below describes the basic rate design and energy charges for each pilot.

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<sup>1</sup> Dakota Electric Association *Residential Electric Rates*, Schedule EV-1; Section V, Sheet 4.0, Revision 2, effective 10/1/20. Accessed at: <https://bit.ly/308ALkr>.

**Table 1. Rate Design of Non-Residential EV Service Pilot and Multi-Family EV Service Pilot**

	Time Period	<i>Non-Residential EV Service Pilot</i>	<i>Multi-Family EV Service Pilot</i>
		Energy Charge per kWh	
On-peak	4:00 p.m. – 9:00 p.m., Mon – Fri. excl. holidays	\$0.2706	\$0.4420
Off-peak	9:00 p.m. – 8:00 a.m., Mon – Fri., incl. weekends and holidays	\$0.0689	\$0.0755
Other	8:00 a.m. – 4:00 p.m., Mon – Fri. excl. holidays	\$0.1137	<i>Schedule 31 Residential Rates:</i> Summer (Jun – Aug): \$0.1377 Other Months: \$0.1238

Dakota derived the energy charges of the Non-Residential EV Service Pilot by using estimated wholesale power costs from its recently approved general rate case and the same off-peak cost analysis approach Dakota used for Schedule EV-1. Dakota determined the on-peak period by adding the estimated or calculated wholesale power on-peak energy costs and capacity and transmission costs (converted to an energy basis) to the off-peak energy rate, and used the average “all-in” energy rate for combined Schedules 41, 46, and 54.<sup>2</sup> The energy charges of the Multi-Family Residential EV Service Pilot use the specific charges found in Schedule EV-1.<sup>3</sup> Both proposed pilot programs also offer optional participation in the *Wellspring* program, Dakota’s renewable energy supply program.

According to Dakota’s most recent Annual EV Information Letter,<sup>4</sup> energy billed on the Schedule EV-1 was approximately consumed 90.9% during the off-peak period, 4.5% during the on-peak period, and 4.6% during all other times.

On February 17, 2021, the Minnesota Public Utilities Commission (Commission) issued a Notice of Comment Period (Notice) and opened the following topics for comments:

- Should the Commission approve, modify, or reject Dakota Electric’s proposed Pilot Non-Residential Electric Vehicle Service?
- Should the Commission approve, modify, or reject Dakota Electric’s proposed Pilot Multi-Family Residential Electric Vehicle Service?
- Are there other issues or concerns to this matter?

<sup>2</sup> Petition, at 5-6.

<sup>3</sup> Petition, at 7.

<sup>4</sup> Dakota Electric Association *Annual EV Informational Letter* filed in Docket No. E111/M-12-874, dated May 19, 2020, at 3. Accessed at: <https://bit.ly/385Onla>.

## II. DEPARTMENT ANALYSIS

### A. TOPIC #1: PROPOSED PILOT NON-RESIDENTIAL EV SERVICE

The Department reviewed the proposed Non-Residential EV Service pilot and concludes that using several components of the Schedule EV-1 as the basis for the pilot design is reasonable.

However, it is presently unclear whether participants in the Non-Residential EV Service pilot are offering EV charging to the broader public as part of a participants' course of business, or whether this service is to be used exclusively for the participant's EV(s). The Department notes that Dakota proposed to remove the proof of registration and indicated that it is not applicable to this proposed pilot. This suggests that the Non-Residential EV Service may be designed to allow pilot participants to offer EV charging to the broader public, and if so, the Department is interested in determining whether participants will maintain the rate design as proposed or if they will implement an alternative pricing paradigm (e.g., free EV charging as a promotion of the participants' business, flat-rate fee, etc.).

The Department believes there is significant value in determining whether participants are responding to the price signals that a utility EV rate design sends to the end-user, regardless of whether it is the participant themselves or a third-party using the EV charging service offered by the participant. **The Department requests that Dakota clarify in utility reply comments whether participants in the Non-Residential EV Service pilot would be able to offer EV charging services to third parties and, if so, how Dakota plans to track whether participants are offering the default rate design as proposed or are offering an alternative pricing paradigm. (Department Request 1)**

The Department notes that two main assumptions underpin Dakota's rate design for the proposed Non-Residential EV Service program: the load factor of EV chargers and the coincidence of EV charging with the monthly GRE wholesale billing peak.<sup>5</sup> Dakota did not provide any basis for these two assumptions, and instead stated that "both estimates...will be refined as we gain knowledge from participating consumers."<sup>6</sup>

The Department expects that these estimates can be reasonably refined once additional information is collected. However, **the Department requests that Dakota provide in utility reply comments an expanded rationale for its Load Factor and Coincidence Factor assumptions and to explain whether Dakota used data from its Schedule EV-1 or other tariffs to inform these assumptions. (Department Request 2)**

The Department has reviewed the other components of the proposed rates and does not object to Dakota's proposal. Dakota developed the cost information for its Non-Residential EV Service pilot in a reasonable manner and was able to recreate the cost analysis provided in the "Estimated Wholesale

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<sup>5</sup> Petition, at 6.

<sup>6</sup> Petition, at 6.

Power Costs” attachment. Further, the Department reviewed the proposed tariff sheets and concludes that they are reasonable.

However, the Department withholds a final recommendation until Dakota provides in utility reply comments additional information as requested by Department Requests 1 and 2.

*B. TOPIC #2: PROPOSED PILOT MULTI-FAMILY RESIDENTIAL EV SERVICE*

The Department reviewed the proposed Multi-Family Residential EV Service pilot and concludes that using several components of the Schedule EV-1 as the basis for the pilot design is reasonable.

The Department notes that this service “must be supplied through a separate metered circuit (installed at the multi-family building owner’s expense).”<sup>7</sup> Participation in this tariff therefore may be limited with respect to whether the owner of a multi-family building is willing to pay for a separately metered circuit, regardless of whether the resident(s) of the multi-family building would like to participate and may be willing to pay for the cost of the separate meter themselves.

The Department expects there will be a non-zero number of multi-family building owners who decline to participate despite residents expressing interest in having access to residential EV charging.<sup>8</sup> This represents a potential barrier for participation. **The Department requests that Dakota provide in utility reply comments a discussion of whether the separate metered circuit requirement will serve as a barrier to EV charging and determine whether this potential barrier can be addressed through mechanisms such as rebates or other measures aimed at incentivizing multi-family building owner participation. (Department Request 3)**

Additionally, the Department is interested in learning more about the capabilities of Dakota’s Advanced Grid Infrastructure (AGi) effort as it relates to this pilot. For instance, the Department is interested in learning whether Dakota’s AGi technology is capable, or will be capable once fully implemented, of submetering to individual residents from a common/shared EV charger at the multi-family residence. Such a capability may allow for expanded use of a common EV charger (or EV chargers) that can be shared by multiple residents, enable individualized billing for each resident, and help potentially defray the costs of installing EV chargers at a multi-family residence.

**The Department requests that Dakota provide in reply comments a broader discussion of the capabilities of Dakota’s AGi effort as it relates to enabling submetering and the potential to use such capabilities to defray the costs of installing EV chargers at multi-family residences. (Department Request 4)**

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<sup>7</sup> Petition, at 8.

<sup>8</sup> The Department notes that Xcel has proposed to experiment with different levels of financial support for multi-family building owners. See Docket No. E002/M-20-711.

The Department has reviewed the other components of the proposed rates and does not object to Dakota's proposal. Further, the Department reviewed the proposed tariff sheets and concludes that they are reasonable.

However, the Department withholds a final recommendation until Dakota provides in utility reply comments additional information as requested by Department Requests 3 and 4.

*C. TOPIC #3: OTHER ISSUES OR CONCERNS*

The Department has identified several other issues with respect to both the Non-Residential EV Service and Multi-Family EV Service pilot programs:

- Compliance with the Commission's February 1, 2019 Order in Docket No. E999/CI-17-879;
- Specific elements of the pilot program's design, such as the term, enrollment, and evaluation; and
- Participation in the Revolt program as opposed to the Wellspring program.

The Department addresses each of these issues below.

*1. Compliance with the Commission's February 1, 2019 Order in Docket No. E999/CI-17-879*

The Commission's February 1, 2019 Order in the Commission Inquiry into Electric Vehicle Charging and Infrastructure (Commission EV Inquiry) in Docket No. E999/CI-17-879 has content requirements for proposed EV pilot programs. Order Point Nos. 6b and 16 require utilities to provide the following information with any proposed EV pilot program:

6. *Content of EV-Related Proposals/Investments:* The Commission finds that the following should be included at a minimum in any EV-related utility proposals:

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- b. In the case of a proposed pilot, the utility filing should include specific evaluation metrics for the pilot and identify what the utility expects to learn from the pilot. An extensive cost-benefit analysis may not be needed for a pilot, depending on the scope and cost of the pilot.

...

16. In any future pilot proposal, utilities should include a discussion of the following topics to the extent relevant:

- a. Environmental justice, with a focus on communities disproportionately disadvantaged by traditional fossil fuel use;

- b. Low-income access and equitable access to vehicles and charging infrastructure, which can include all-electric public transit and EV ride-sharing options;
- c. Environmental benefits, including but not limited to carbon and other emission reductions;
- d. Potential economic development and employment benefits in Minnesota;
- e. Interoperability and open charging standards;
- f. Load management capabilities, including the use of demand response in charging equipment or vehicles;
- g. Energy and capacity requirements;
- h. Pilot expansion and/or transition to permanent status at a greater scale;
- i. Education and outreach;
- j. Market competitiveness/ownership structures;
- k. Distribution system impacts;
- l. Cost and benefits of the proposal;
- m. Customer data privacy and security; and
- n. Evaluation metrics and reporting schedule

## *2. Pilot Program Design*

While a strict definition of a utility pilot program may be elusive, there are certain elements of a utility pilot program that should be present when a utility proposes one. Pilot programs are designed, in part, to offer a novel program idea or rate design to a subset of utility customers limited in duration, size, customer class, and/or technology with a set of variables or objectives that are designed to be tested. It is unclear what precisely Dakota is proposing to study and better understand with these proposed EV pilot programs.

While the Department expects that the Commission EV Inquiry's content requirements will elucidate a greater understanding of Dakota's proposed EV pilot programs, including its goals and metrics for evaluation, the Department requests that Dakota also provide a discussion of the proposed duration of the pilot and the number of participants Dakota plans on enrolling. Such temporal and participant limits serve to guard against any unforeseen harm and risk that often accompany pilot programs.<sup>9</sup>

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<sup>9</sup> The nature of some aspect of the risk of a pilot program is that it may be unforeseen. However, as an example, a specific risk of the Non-Residential EV Service is a rate design that results in higher or lower than reasonable rates to participants due to assumptions made regarding the Load Factor and Coincident Factor components of the rate. While this risk may not be one that puts customers nor Dakota in a dramatic risk of over- or under-recovery, it is a risk that needs to be managed until such time that Dakota has better data regarding those two assumptions and present the pilot program as a full offering. Here, temporal and participant limits can help manage that risk.

**The Department requests that Dakota propose a clear pilot duration and a reasonable limit on the number of participants allowed to enroll in both pilot programs. (Department Recommendation 1)**

The Department will evaluate Dakota's reply comments before making further recommendations regarding the design of both pilot programs.

### *3. Dakota's Revolt Program*

The Department notes that Dakota proposed to offer participants in both the Non-Residential EV Service pilot program and the Multi-Family EV Service pilot program an opportunity to enroll in its voluntary and optional Wellspring program (Schedule 90)<sup>10</sup>, which provides Dakota customers the option to purchase energy from wind and solar renewable sources.<sup>11</sup>

The Department notes that Dakota offers a free program for electric vehicle owners called Revolt, which provides EV owners that enroll with the opportunity to charge their EVs with 100% wind energy for the life of the vehicle.<sup>12</sup>

**The Department requests that Dakota explain in utility reply comments why this incentive was not proposed to be available for participants in both pilot programs and whether Dakota would consider providing this option to incentivize participation in both pilot programs. (Department Request 5)**

### **III. DEPARTMENT RECOMMENDATIONS**

The Department appreciates the opportunity to comment on these proposed pilot programs and looks forward to reviewing additional information provided from Dakota. The Department requests the following information:

- **The Department requests that Dakota clarify in utility reply comments whether participants in the Non-Residential EV Service pilot would be able to offer EV charging services to third parties and, if so, how Dakota plans to track whether participants are offering the default rate design as proposed or are offering an alternative pricing paradigm. (Department Request 1)**
- **The Department requests that Dakota provide in utility reply comments an expanded rationale for its Load Factor and Coincidence Factor assumptions and to explain whether**

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<sup>10</sup> Petition, at 6 and 9.

<sup>11</sup> Dakota Electric Association *Residential Electric Rates*, Schedule 90, Section V, Sheet 44.0, Revision 17, effective 1/1/19. Accessed at: <https://bit.ly/308ALkr>.

<sup>12</sup> Dakota Electric Association *Annual EV Informational Letter* filed in Docket No. E111/M-12-874, dated May 19, 2020, at 4, Attachment *DEA Website: EV Information*, at (PDF page #) 11-13. Accessed at: <https://bit.ly/385Onla>.



**Dakota used data from its Schedule EV-1 or other tariffs to inform these assumptions. (Department Request 2)**

- **The Department requests that Dakota provide in utility reply comments a discussion of whether the separate metered circuit requirement will serve as a barrier to EV charging and determine whether this potential barrier can be addressed through mechanisms such as rebates or other measures aimed at incentivizing multi-family building owner participation. (Department Request 3)**
- **The Department requests that Dakota provide in reply comments a broader discussion of the capabilities of Dakota’s AGI effort as it relates to enabling submetering and the potential to use such capabilities to defray the costs of installing EV chargers at multi-family residences. (Department Request 4)**
- **The Department requests that Dakota explain in utility reply comments why this incentive was not proposed to be available for participants in both pilot programs and whether Dakota would consider providing this option to incentivize participation in both pilot programs. (Department Request 5)**

The Department recommends that Dakota propose the following modifications to the design of its pilot programs:

- **The Department requests that Dakota propose a clear pilot duration and a reasonable limit on the number of participants allowed to enroll in both pilot programs. (Department Recommendation 1)**

The Department will provide final recommendations after review of stakeholder and utility reply comments.

/ja

## **CERTIFICATE OF SERVICE**

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce  
Comments**

**Docket No. E111/M-21-127**

**Dated this 15<sup>th</sup> day of March 2021**

**/s/Sharon Ferguson**

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_21-127_M-21-127
Eric	Fehlhaber	efehlhaber@dakotaelectric.com	Dakota Electric Association	4300 220th St W  Farmington, MN 55024	Electronic Service	No	OFF_SL_21-127_M-21-127
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280  Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_21-127_M-21-127
Corey	Hintz	chintz@dakotaelectric.com	Dakota Electric Association	4300 220th Street  Farmington, MN 550249583	Electronic Service	No	OFF_SL_21-127_M-21-127
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W  Farmington, MN 55024	Electronic Service	No	OFF_SL_21-127_M-21-127
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E  St. Paul, MN 55106	Electronic Service	No	OFF_SL_21-127_M-21-127
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022093	Electronic Service	No	OFF_SL_21-127_M-21-127
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_21-127_M-21-127
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350  Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_21-127_M-21-127
Eric	Swanson	eswanson@winthrop.com	Winthrop & Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_21-127_M-21-127